NOTE ON A CHINESE BRAIN.[1]

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THE specimen on which the following note is based is the brain of an adult Chinaman of the coolie class. For the opportunity of studing it I am indebted to Professor Henry C. Chapman.

Our purpose will be best served by a comparison with previous descriptions. It will be remembered that the first Chinese brain ever studied was that by Mills and Parker[2] in 1886. Shortly after, in 1887, Benedict[3] describes three others, and in 1889 two Chinese brains were described by the writer.[4]

Let us glance first at the more important fissures of the lateral and mesial surface and then take into consideration points of more general value.

The Fossa Sylvii.—In the brain described by Mills and Parker, the fossa Sylvii is decidedly long in both hemispheres. In the second specimen of the brains described by the writer, the fossa is also very long in both hemispheres. Benedict makes no special mention of this point and it is probable that very unusual length is not characteristic of the fossa in his specimen. In the specimen in hand the fossa likewise is not unusually long.

The Central Fissure.—In the Mills-Parker brain the central fissure is nearly confluent with the Sylvian in both hemispheres. In Benedict's specimens, judging from the drawings, the same condition was present in the right hemisphere of his first brain, in both hemispheres of his second brain and in the left hemisphere of the third. This condition also obtains in the right hemisphere of brain number one and in both hemispheres of brain number two of my own previously described specimens. In the left hemisphere of brain number one (my own specimen), the central fissure is freely confluent with the Sylvian. This also obtains in the right hemisphere of Benedict's third brain. In the specimen in hand the central fissure is confluent with the Sylvian in the right hemisphere, and all but confluent in the left. In all of the brains, then, it may be stated the central fissure is nearly or actually confluent with the Sylvian.

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[1] Read at the meeting of the American Neurological Association, New York, June 22, 23 and 24, 1892.

[2] Preliminary study of a Chinese Brain, by A. J. Parker and Chas. K. Mills, Journal of Nervous and Mental Disease, Vol. xiii., No. 10. 1886. (Embodied in the address of Dr. Mills.)

[3] Drei Chinesen Gehirne. Prof. Dr. Moriz Benedikt. Medizinische Jahrb., 1889.

[4] A Description of Two Chinese Brains. Journal of Nervous and Mental Disease, July, 1889.

The Parellel Fissure.—Mills and Parker noted in their specimen extreme length, and confluence with other fissures, of the parallel fissure. The same condition was also present in both of my own previously described specimens. In the brain in hand it is of excessive length in the right hemisphere and is confluent with a number of transverse or perpendicular fissures, one of which at least constitutes a well-marked Wernicke fissure. In the left hemisphere the early portion of its course is interrupted, but it finally extends backward to an extraordinary degree. Tranverse confluences are also noted, the most posterior being as before a well-marked Wernicke.

The Interparietal Fissure.—In the Mills-Parker brain the interparietal fissure presents nothing beyond a division by a bridging convolution into two parts. It was not confluent with the parieto-occipital. In the drawings of Benedict it is seen to be confluent with this fissure in three instances, twice in the same brain, the third, and once in the second. In my own previously described specimens this confluence was found twice, namely, in both hemispheres of brain number two. In the specimen in hand the interparietal is broken in both hemispheres. On the right side its posterior portion is superficially confluent with the parieto-occipital. On the left it is imperfectly separated by an incompletly developed *pli de passage superieur externe.* On the right side again the parieto-occipital is prolonged from the point of confluence into a large and deep external perpendicular. A similar, though less well-marked, external perpendicular element exists in the left hemisphere. External perpendicular fissures exist in the brain of Mills and Parker, in both of my previously described specimens and apparently in some of Benedict's.

The Collosomarginal Fissure.—Mills and Parker note unusual complexity of the collosmarginal fissure in one hemisphere and instances of vegetative repetition in both. Similar features were noted in both of my previously described specimens. In the specimen in hand the collosomarginal presents a number of instances of vegetative repetition, while in the right hemisphere it gains an apparently excessive length by confluence with a fissure of the quadrate lobule which pursues the same course and direction.

The Parieto-Occipital, the Hippocampal and the Calcarine Fissures.—In the Mills-Parker brain the calcarine bears in the left hemisphere a normal relation to the hippocampal fissure; that is, it does not become confluent with the latter, and the gyrus fornicatus is at this point developed fully up to the brain level. In the right hemisphere the photograph shows that this confluence all but takes place, the gyrus fornicatus being reduced to a mere shred. In the specimens of Benedict this confluence is depicted as taking place twice; that is, in both hemispheres of his first brain. In my previously described specimens this confluence takes place in every instance, the gyrus fornicatus being always completely submerged. In the specimen in hand this confluence exists in both hemispheres, although in the left it is superficial.

Benedict states that in the right hemisphere of his second brain the normal confluence with parieto-occipital and the calcarine does not take place. However, his drawing is not in harmony with the statement, nor has such a condition been found in any of the other brains examined.

In addition to the features noted, the parieto-occipital, the calcarine and the hippocampal offer no peculiarities that may not also be observed in white brains.

GENERAL OBSERVATIONS.

1. *Transverse Fissuration.*—In addition to the above enumeration of confluences it should be stated that in all of the brains thus far examined an unusual tendency to tranverse or perpendicular fissuration is present. This has already been touched upon in dealing with the relations of the interparietal and parieto-occipital fissures. It is, however, also emphasized in the frontal and parietal lobes by the presence of unusually well-marked precental and retrocentral fissures, and by the significant tendency of the central fissure to become confluent with the Sylvian. In the specimen in hand, for instance, the precentral and the retrocentral fissures are almost as well developed and as striking as the central itself. This is particularly the case in the left hemisphere.

2. *Sinuosity of Fissures.*—Unusually marked sinuosity of the central fissure was noted by Mills and Parker, Benedict and the writer. This sinuosity found expression also in the excessively developed precentral and retrocentral elements, and occasionally elsewhere. In the brain in hand these peculiarities are well marked.

3. *Gross Peculiarities.*—In all of the brains studied (by Mills and Parker, Benedict and the writer) an obliquity or eversion of the basal surface of the frontal lobe was noted. This observation was made independently by Benedict and Mills and Parker. Benedict further stated that in his specimens the basi-temporal surface also partook of this quality. Eversion of the basi-frontal surface was also noted in the previously described brains of the writer, and in one of these eversion of the basi-temporal surface was also noted; in the other of these specimens it was probable that distortion while hardening had caused this quality to disappear. In the specimen

in hand the eversion is marked in both frontal lobes. In the left temporal lobe it is well marked, in the right lobe distortion and flattening while hardening has evidently taken place.

In both of the previously described specimens of the writer, complexity was given to the frontal lobes by the appearance of well-marked medi-frontal elements. In the present specimen an added frontal fissure having the value of Wilder's medi-frontal is present on the left frontal lobe, but is comparatively short. In the right lobe traces of it only are found. In this respect the present specimen differs from those previously described by the writer; that is, the frontal lobe is somewhat simpler.

In both of my former specimens the cuneus and in fact the occipital lobe, was noted as rather small. This also holds good in the present specimen.

In conclusion, these brains, owing probably to the unusual sinuosity of some of the fissures, together with the excessive transverse fissuration, have a physiognomy, as it were, of their own. They certainly in general appearance look different from the average white brain that we handle, and very different from the brain of the negro.

HYSTERICAL FEVER.

Scarbo, in the "Centralblatt für klin. Med.," reports a typical case of disease. He says that hysterical fever exists in two forms, as a continuous and intermittent fever. It is functional in character and associated with hysteria. The differential diagnosis is made by its being coincident with hysteria, by irregularity and sudden cessation of the fever, by absence of results from antipyretics, and by the enormous high pulse rate as compared to the slight increase in temperature. The fever may occur in simple hysteria, but has been observed in cases of hystero-epilepsy. B. M.